

REMARKS

The Office Action mailed on August 21, 2008, has been reviewed and the comments of the Patent and Trademark Office have been considered. Prior to this paper, claims 1-18 were pending, with claims 6 and 15-18 being withdrawn from prosecution. By this paper, Applicants do not cancel any claims, and add claims 19-21. Therefore, claims 1-21 are now pending.

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Drawing Objections

In the Office Action, the drawings are objected to based on the allegation that the gluing or pressing described in various claims is not shown in the drawings. In response, in order to advance prosecution, and without prejudice or disclaimer, reference to the plates being pressed together has been removed from the claims, and the specification has been amended to indicate that elements 32 of Fig. 5 correspond, in an alternate embodiment, to glue. Reconsideration is requested.

Claim Objections

In the Office Action, claims 8 and 11 are objected to based on the allegation that the gluing or pressing described in claim 8 is not shown in the drawings. In response, in order to advance prosecution, and without prejudice or disclaimer, reference to the plates being pressed together has been removed from the claims, and the specification has been amended to indicate that elements 32 of Fig. 5 correspond, in an alternate embodiment, to glue. Reconsideration is requested.

Rejections Under 35 U.S.C. §112, Second Paragraph

In the Office Action, claims 8-11 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. However, only claim 9 is discussed with respect to the indefiniteness rejection of claims 8-11.

In response, in order to advance prosecution, and without prejudice or disclaimer, Applicants hereby amend claim 9, and request reconsideration.

Rejections Under 35 U.S.C. § 102

Claims 1-3, 5, 7-11 and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Bombard (U.S. Patent No. 4,366,654). Further, claims 1, 5 and 7-11 stand rejected under 35 U.S.C. §102(b) as being anticipated by the British Reference (GB 1,341,892). In response, Applicants traverse the anticipation rejections for at least the reasons that follow.

Applicants rely on MPEP § 2131, entitled “Anticipation – Application of 35 U.S.C. 102(a), (b), and (e),” which states that a “claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Section 103 amplifies the meaning of this anticipation standard by pointing out that anticipation requires that the claimed subject matter must be “*identically* disclosed or described” by the prior art reference. (Emphasis added.) Further, for anticipation, “every element and limitation of the claimed invention must be found in a single prior art reference, **arranged as in the claim.**” (*Brown v. 3M*, 60 USPQ2d 1375 (Fed. Cir. 2001), emphasis added.) None of the cited references includes an anticipatory teaching pursuant to the just-discussed requirements.

Specifically, claim 1 recites “a fluid tight barrier preventing the stored fluids from escaping out of the tank, **the fluid tight barrier being formed of thin, joined metal plates.**” (Emphasis added.) The Office Action asserts that Bomhard teaches the “fluid tight barrier” of claim 1. Specifically, the Office Action identifies “metal liner 11” of Bomhard as corresponding to the fluid tight barrier. However, there is nothing in Bomhard that indicates that the metal liner 11 is formed of “thin, joined metal plates,” as is required by claim 1. The Office Action does not assert the contrary. ***Indeed, the Office Action is silent on this recitation.*** Accordingly, a case of anticipation of claim 1 has not been sufficiently established with respect to Bomhard.

The British Reference is likewise not an anticipatory reference with respect to claim 1. The Office Action asserts that the steel liner 36 of the British Reference corresponds to the

“fluid tight barrier” of claim 1. Again, as with Bomhard, there is nothing in the British reference that indicates that the steel liner 36 is formed of “thin, joined metal plates.” Further, as with Bomhard, *the Office Action is silent with respect to this recitation*. Thus, a case of anticipation of claim 1 has not been sufficiently established with respect to the British Reference.

In summary, neither Bomhard nor the British Reference anticipates claim 1, and thus no claim that depends from claim 1 is anticipated. Reconsideration is requested for at least these reasons. Further, many of the dependent claims are likewise independently allowable in view of these cited references, as will now be discussed.

Claims 2 and 3: Claim 2 recites that the “inner structurally supporting wall element is made of multi-axially prestressed concrete.” (Emphasis added.) Claim 3 recites that the “outer structurally supporting wall element is formed by multi-axially prestressed concrete.” Bomhard does not teach either of these features, as there is no indication in Bomhard of such inner wall element located internally of the metal liner 11. Hence, no claim is not anticipated by Bomhard. Specifically, the Office Action asserts that both the inner supporting wall and the outer supporting walls have T-shaped reinforcements extending into the cast concrete. It should be appreciated that the purpose of said T-shaped bodies is not to reinforce the concrete walls, but instead to simply secure the steel wall so that walls 9 and 12 do not move radially inwards away from the concrete wall when the cryogenic fluid is filled into the inner tank, and the steel plates contract more than the surrounding concrete wall. Further, the mere fact that the T-shaped bodies are embedded in concrete does not mean that the concrete is “multi-axially prestressed concrete.” Indeed, the fact that the elements are T-shaped, as opposed to, for example, I-shaped, which would provide surfaces at both ends for the stressed concrete to react against, indicates that the elements do not impart any prestress on the concrete. Simply put, the T-shaped bodies do not describe, exactly as claimed, the features of either of claims 2 and claim 3.

Claims 9 and 10: Claim 9 recites that the tank is provided with a fluid tight base plate formed by metal, the base plate resting movably on a support, wherein the inner structurally supporting wall element and outer structurally supporting wall element are is

made of concrete, and wherein the vertical wall, at its lower end, is terminated by means of a horizontal metal plate and an inner and an outer vertical steel plate extending along the inner and outer circumference of the vertical wall, the vertical steel plates being welded to the horizontal metal plate.

The Office Action rejects claim 9 in view of Bomhard, *yet cites nothing in Bomhard allegedly corresponding to the features of claim 9*. That is, the Office Action is silent with respect to explaining why claim 9 is allegedly anticipated by Bomhard.

The Office Action also rejects claim 9 in view of the British Reference, yet, as with Bomhard, *cites nothing in the British Reference allegedly corresponding to the features of claim 9*. That is, the Office Action is silent with respect to explaining why claim 9 is allegedly anticipated by the British Reference.

It is respectfully submitted that a case of anticipation with respect to claim 9 has not been established in the Office Action. The rejection of claim 10 (claim 10 depending from claim 9), is likewise deficient for at least the reasons just mentioned.

Claims 8 and 11: Claims 8 and 11 recite that the edges of the metal plates overlap each other partly and *are glued* together to form a tight membrane. There is no teaching in either Bomhard or the British Reference of glued edges of the metal plates overlapping each other partly. The Office Action cites nothing in either reference as allegedly corresponding to the features of claim 11. That is, *the Office Action is silent with respect to explaining why claim 11 is allegedly anticipated by Bomhard and the British Reference*. A sufficient case of anticipation against claim 11 has not been established.

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In summary, no claim is anticipated by the cited references. Reconsideration is requested.

Rejections Under 35 U.S.C. § 103

In the Office Action, claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Bomhard in view of Hendriks (U.S. Patent No. 4,069,642). Further, claims 12 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bomhard in view of Papanicolaou (U.S. Patent No. 3,948,406). In response, Applicants traverse the rejection of these claims.

As noted above, Bombard is deficient with respect to claim 1, from which claims 4, 12 and 13 depend. The Office Action does not explain why either of Hendriks or Papanicolaou remedy the deficiencies of Bomhard in a manner that comports with 35 U.S.C. §103(a). Thus, a *prima facie* case of obviousness has not been established with respect to any claim rejected under 35 U.S.C. §103(a). Reconsideration is requested for at least this reason, but there is more.

According to an embodiment of the present invention, the outer and inner concrete wall elements and the intermediate steel membrane form an integrated, compact unit where said concrete wall elements are designed to take all structural forces, *i.e.* static and dynamic forces, acting on the wall system of the inner tank, while the intermediate steel membrane forms the fluid tight barrier without any significant structural load carrying capacity. (See, for example, page 3 of the application, last paragraph.) In some embodiments, with respect to Fig. 4, both the inner and outer wall element function as a protection for the intermediate membrane. The outer membrane will protect both the inner wall element and the membrane from externally exposed forces and loads and will, in addition, and due to the pre-stressing, also contribute to resisting the pressure forces and temperature effects from the cryogenic content of the inner tank.

Accordingly the features of the claims are not obvious in view of the cited references for this additional reason.

New Claims

Applicants have added new claims 19, 20 and 21, as seen above. These claims are allowable for at least the pertinent reasons, and for the additional reason that none of the cited

references teach the features added to these claims not explicitly recited in claim 1. Entry and allowance is requested.

Rejoinder of Claims 6 and 15-18

Claims 6 and 15-18 stand withdrawn. Applicants note that claim 6 depends from claim 1, a claim that is allowable. Applicants respectfully request that these claims be rejoined and allowed due to their dependency from claim 1, a claim that is allowable. Applicants respectfully submit that no significant burden is placed on the PTO by rejoining and examining these claims. Indeed, such action is concomitant with the indication that “upon allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim.”

Claims 15-18 are also withdrawn. These claims are *method claims drawn to a method of making the apparatus of claim 1*. Pursuant to MPEP § 821.04 and *In re Ochiai*, 71 F.3d 1565, 37 USPQ2d 1127 (Fed. Cir. 1995), it is respectfully requested that these claim be rejoined and considered, since MPEP § 821.04 states that “when a product claim is found allowable, applicant may present claims directed to the process of making and/or using the patentable product.”

Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If

any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Examiner Castellano is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

Date

11/21/2008
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